LETTERS TO THE EDITOR

Regarding "Giant splenic artery aneurysms: Case report and review of the literature"

We have read with interest the article by Radu Pescarus et al.[1] The authors report an unusual case of a giant splenic artery aneurysm (SAA) treated by open surgical repair with good results and provide a review of the 12 giant SAAs published to date.

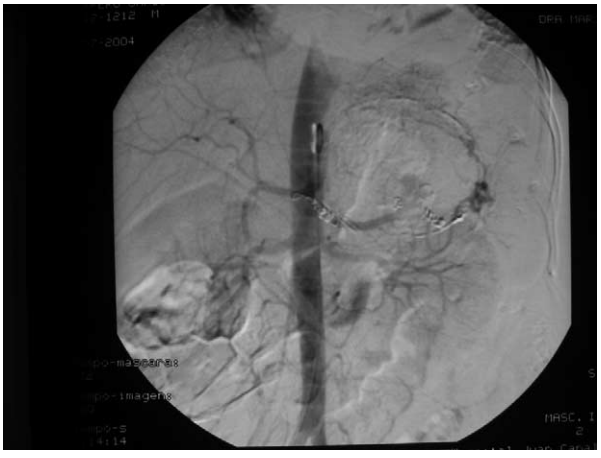
They find a different pattern with respect to the small SAAs: male predominance, absence of a clear etiologic factor, situation in the middle third of the artery, and a higher presentation with rupture (25%). At the same time, the surgery in their case needed a medial visceral rotation for the artery control and splenectomy. Possible endovascular options were not considered because of the tortuosity of the artery for a stent -raft deployment and the lack of experience and likelihood of failure of coil embolization. None of the cases of the review had an endovascular repair.

Recently, we reported the treatment of a ruptured giant SAA with coil embolization (Fig). Good results were obtained, and the spleen was preserved.[2] The pattern of our case was the common one for small SAAs: female in the sixth decade of life with portal hypertension; however, the aneurysm was situated in the middle third of the artery.

As Pescarus et al[3] remarked in their review, giant SAAs have a more difficult surgical exposure and >50% of the cases require splenectomy. By contrast, small aneurysms require splenectomy in <30%. This is an important issue, because after splenectomy, patients are considered immunodeficient.

In the light of our experience, we believe that giant SAAs should be considered for endovascular repair as a first line of treatment if anatomically suitable. Endovascular stent-graft exclusion of SAA could be carried out if the tortuosity of the artery is not extreme. Proximal and distal coil embolization is preferable in the proximal and middle third of the artery, preserving the short gastric arteries to feed the spleen. The size of the coils should be bigger than the diameter of the distal artery to avoid spleen migration. Recurrences with embolization are not infrequent, and subsequent contrast helicoidal computed tomography scans of the abdomen should be performed to detect them.

Percutaneous coil embolization with ultrasound-Doppler scan guidance has been performed in postcatheterization arterial femoral pseudoaneurysms[4] and could be considered when the giant SAA is easily accessible to puncture. This has not yet been tested, however, and requires further discussion.



Splenic artery arteriogram shows proximal and distal coil embolization of a giant splenic artery aneurysm.

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Reply

We thank Dr Hernandez-Lahoz and colleagues for their comments on our article and for sharing their experience in treating large splenic aneurysms. They bring forward an interesting approach in the treatment of giant splenic artery aneurysm. An 8-cm ruptured splenic artery aneurysm of the middle third of the artery was successfully embolized proximally and distally with coils. In our case, this treatment modality was not attempted, because we believed that the length and extreme tortuosity of the arterial channel would have prevented successful distal embolization.

We recognize, however, that the size of the aneurysm per se, should not be considered a contraindication to coil embolization and that the main limitations of this innovative approach are essentially technical in nature. This is especially true for giant splenic aneurysms, as the tortuosity of the arterial channel often parallels the size of the aneurysm. Precise placement of the coils proximal and distal to the aneurysm is critical for complete and immediate blood flow exclusion of the sac and preservation of short gastric arteries to be achieved. Potential complications, which include splenic infarction, abscess formation, and higher rates of recurrence are all related to the technical pitfalls associated to this treatment approach.

We agree with your comments that at least in elective situations, embolization of large and perhaps giant (>10 cm) splenic artery aneurysms should be considered, as it offers the patient a minimally invasive therapeutic alternative to a potentially lethal condition.

Your comment on the role of percutaneous coil embolization with ultrasound-Doppler guidance is also highly relevant, especially in cases of incomplete exclusion or recurrences for which access to the splenic artery is no longer possible via the usual route.

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